



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 4  
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ATLANTA GEORGIA 30303-8960

May 16, 2011

Ms. Susan J. Kelly  
Senior Manager  
Tennessee Valley Authority  
400 West Summit Hill Drive  
Knoxville, Tennessee 37902

**Subject: EPA NEPA Review Comments on TVA's DEIS for "Natural Resource Plan"; CEQ #20110092**

Dear Ms. Kelly:

The U.S. Environmental Protection Agency (EPA) has reviewed the subject Tennessee Valley Authority (TVA) Draft Environmental Impact Statement (DEIS) in accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. It is our understanding that TVA proposes to adopt a Natural Resource Plan (NRP) to determine how the agency will manage its natural resources over the next twenty years. The NRP addresses the planning processes and Environmental Policy objectives related to Water Resources Protection and Improvement, Sustainable Land Use, and Natural Resource Management.<sup>1</sup>

EPA has reviewed several TVA EISs over the past several years that relate to the development of the NRP. These include: the Reservoir Operations Study Programmatic Environmental Impact Statement (PEIS), the Shoreline Management Initiative: An Assessment of Residential Shoreline Development Impacts in the Tennessee Valley Final Environmental Impact Statement, and various Reservoir Management Plan EISs. We applaud TVA's efforts in development of a comprehensive plan to manage TVA's vast natural resources across the Tennessee Valley. We also appreciate TVA's efforts to coordinate with the Region on this EIS, which resulted in a meeting at TVA's Knoxville office on May 10, 2011.

Accompanying the NRP DEIS was a separate Draft NRP document. While we have concentrated on the NEPA review and comment of the DEIS, we have also provided review comments on the Draft NRP. Our comments are provided for TVA's consideration during its development of the Final EIS (FEIS) and the Final NRP.

## **Overview**

The NRP in combination with the Integrated Resource Plan (IRP), which EPA recently reviewed, are implementation plans for the 2008 Environmental Policy. It is our

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<sup>1</sup> P. S-1

understanding that the NRP is the first plan that TVA has developed that will comprehensively guide TVA's management strategies of all natural resources that TVA oversees. As stated in the DEIS, TVA's goals of the NRP are to align TVA's stewardship programs and plans with the 2008 TVA Environmental Policy, guide TVA's land use and resource management decisions and actions, integrate effective, efficient stewardship objectives with the goal of optimizing the public use benefits of TVA-managed lands, provide clarity and transparency to the public, and lastly strike a balance between the competing and sometimes conflicting resource uses of TVA-managed lands.<sup>2</sup>

## **Alternatives**

TVA analyzed four alternatives in the DEIS including the no-action alternative:

- **Alternative A, the “No Action” Alternative** - TVA would continue to implement the existing stewardship programs and tools, aligning with existing policies and strategies, and would continue to apply the existing methodology when planning lands along TVA reservoirs.
- **Alternative B, the “Custodial Management” Alternative** - TVA would only implement specific programs that address safety and compliance with TVA's mission, applicable laws, regulations, executive orders, and policies.
- **Alternative C, the “Flagship Management” Alternative** - TVA would explore, pilot test, and implement new strategies for enhancing stewardship programs and developed recreation facilities while emphasizing sustainable technologies.
- **Alternative B, the “Blended Management” Alternative (Preferred)** - TVA identified key programs that are integral toward enhancing future implementation efforts while maintaining activities and projects that address safety and comply with TVA's mission and applicable laws, regulations, policies, and EOs.

The DEIS evaluates four primary resource areas in a programmatic manner. These resource areas included: Biological and Cultural Resources, Recreation, Water Resources, and Reservoir Lands Planning. Under each resource multiple programs were listed. Under the preferred alternative, some existing programs will be maintained at the current levels, some existing programs will be enhanced, and in some cases new programs will be proposed.

Planning strategies listed in the NRP provides the outline of how TVA will manage its natural resources over the next 20 years. It should be noted that based on the May 10, 2011 meeting, EPA understands that TVA intends to treat the NRP as a “living document” and will re-evaluate the document every 5 years. It is also our understanding that based on the significance of the changes to the NRP in the future, TVA will determine the level of NEPA necessary. EPA applauds TVA's use of NEPA in this planning process.

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<sup>2</sup> P. S-2

## **EPA Recommendations**

### Organization of DEIS and NRP:

EPA finds it difficult to determine which programs will be enhanced and developed under the preferred alternative. EPA notes numerous tables in Chapter 2 that provided information on current and proposed programs yet it is unclear if these programs are being proposed under the preferred alternative (see enclosure for more detail). Appendix H appears to provide clearer detail and should be used more prominently in the document.

EPA also notes from the May 10, 2011 presentation material that TVA intends to restructure the NRP document. TVA has proposed to re-organize the NRP and dedicate separate chapters for each resource area. EPA concurs with this modification as it should provide for a more concise document.

### Near Term Programs and Actions:

EPA understands that the NRP and the DEIS are addressing resource areas in a programmatic manner in which only minimal information on specific implementation actions may be available. EPA recommends that TVA provide some “near term” (next five years) programs and actions that TVA intends to implement under the preferred alternative in the FEIS.

### Alternatives:

Based on the information provided in the DEIS, EPA prefers alternative C, which would provide the greatest overall benefit to the environment. Although, EPA understands that Alternative C may not be the most practicable alternative due to resource constraints and therefore accepts TVA’s preferred alternative D, the blended management approach. However, EPA has some specific comments below regarding specific programs listed in Appendix H.

### Anticipated Future Conditions – Climate Change:

On October 14, 2010 the Climate Change Adaption Task Force, which included representatives from the White House Council on Environmental Quality (CEQ), the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA) released an interagency report that addressed how federal agencies can better prepare for impacts from climate change. The task force made the following recommendations:

- Make adaptation a standard part of Agency planning to ensure that resources are invested wisely and services and operations remain effective in a changing climate.
- Ensure scientific information about the impacts of climate change is easily accessible so public and private sector decision-makers can build adaptive capacity into their plans and activities.

- Align Federal efforts to respond to climate impacts that cut across jurisdictions and missions, such as those that threaten water resources, public health, oceans and coasts, and communities.
- Develop a U.S. strategy to support international adaptation that leverages resources across the Federal Government to help developing countries reduce their vulnerability to climate change through programs that are consistent with the core principles and objectives of the President's new Global Development Policy.
- Build strong partnerships to support local, state, and tribal decision makers in improving management of places and infrastructure most likely to be affected by climate change.

Based on our review of the DEIS, TVA has adequately described the current environmental setting for the NRP, but possible changes to the environment in the future due to climate change may change the way TVA manages its natural resources. EPA encourages TVA to incorporate the above recommendations from the task force into future planning efforts associated with the NRP. EPA does note information regarding climate change was included in Appendix M, but we are requesting additional information and clarification of how TVA will respond to climate change in light of the above recommendations.

#### Environmental Justice (EJ)

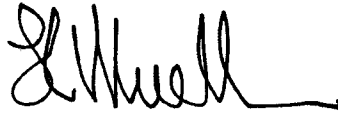
EPA appreciated TVA's efforts to address EJ in Chapters 4 and 5. The socioeconomic and EJ discussions focused on state population density, employment, income, minority populations, and poverty. Since the NRP is addressing management strategies of natural resources at such a macro level, it is difficult to identify direct impacts on EJ communities. However, EPA does recommend that TVA improve the EJ analysis by enhancing public participation and identifying key EJ stakeholders in the TVA study area. This would provide for a more meaningful engagement of the EJ community. TVA should also note that agencies should, as appropriate, acknowledge and seek to overcome linguistic, cultural, institutional, geographic, and other barriers to meaningful participation, and should incorporate active outreach to affected groups.

#### **EPA DEIS Rating**

EPA commends TVA for its development of a comprehensive natural resource management plan and DEIS that provides a strategic plan to guide the management of TVA's natural resources, and EPA concurs with TVA's preferred alternative – Blended Management. Overall the proposed programs listed under the preferred alternative provide positive benefits to the environment. Based on our review, EPA recommends that TVA focuses on the following areas for revision in the FEIS: document organization, identification of near term action items, adaption to anticipated future conditions, and EJ. EPA rates this DEIS as an "EC-2" (Environmental Concerns, with additional information requested). Regarding our request for additional information, please refer to the attached document labeled *Detailed Comments*.

EPA appreciates the opportunity to review the DEIS. Should TVA have questions regarding our comments, please feel free to contact Dan Holliman of my staff at 404/562-9531 or [holliman.daniel@epa.gov](mailto:holliman.daniel@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "H. Mueller", with a long horizontal flourish extending to the right.

Heinz J. Mueller  
Chief, NEPA Program Office  
Office of Policy and Management

*Enclosures: Summary of Rating Definitions  
Detailed Comments*

## DETAILED COMMENTS

Consistent with Section 102(2)(c) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) Region 4 appreciates the opportunity to provide scoping comments on the proposed EIS for the referenced project. It is our understanding that TVA proposes to adopt a Natural Resource Plan (NRP) to determine how the agency will manage its natural resources over the next twenty years. The NRP addresses the planning processes and the planning processes and Environmental Policy objectives related to Water Resources Protection and Improvement, Sustainable Land Use, and Natural Resource Management. The NRP addresses biological and cultural resources management, recreation management, reservoir lands planning, and water resource management.

TVA analyzed four alternatives in the DEIS including the no-action alternative:

- **Alternative A, the “No Action” Alternative** - TVA would continue to implement the existing stewardship programs and tools, aligning with existing policies and strategies, and would continue to apply the existing methodology when planning lands along TVA reservoirs.
- **Alternative B, the “Custodial Management” Alternative** - TVA would only implement specific programs that address safety and compliance with TVA’s mission, applicable laws, regulations, executive orders, and policies.
- **Alternative C, the “Flagship Management” Alternative** - TVA would explore, pilot test, and implement new strategies for enhancing stewardship programs and developed recreation facilities while emphasizing sustainable technologies. Under Alternative
- **Alternative B, the “Blended Management” Alternative (Preferred)** - TVA identified key programs that are integral toward enhancing future implementation efforts while maintaining activities and projects that address safety and comply with TVA’s mission and applicable laws, regulations, policies, and EOs.

### EPA Comments

#### **Summary:**

- **Table S-1:** EPA recommends that TVA label the preferred alternative in Table S-1 for clarity.

#### **Chapter 1:**

- **Table 1-2:** EPA recommends that the Table be reorganized to show RLMP Developed / RLMP Not Developed. The current configuration is somewhat hard to read.
- Since the TVA Environmental Policy provides the “umbrella” policy for the IRP and NRP and it is referenced multiple times in the DEIS. EPA recommends that the document be added to the appendix of the FEIS.

## Chapter 2:

- **Tables 2-1 – 2-3** – These tables provide a listing of specific management programs for different resources. It is unclear if the “proposed programs” listed in these tables are being proposed under the preferred alternative. If so, this should be made clear in the FEIS.
- **Table 2-2** is located in the Biological Resource Section yet includes information regarding Culture Resource Management programs. EPA recommends that the Cultural Resource Management information be moved into the Cultural Resource Management discussion section for clarity.
- The Cultural Resource Management Overview begins before Section 2.1.1 titled “Cultural Resource Management.”<sup>3</sup> EPA recommends moving the Cultural Resource Management Overview into section 2.1.1.
- EPA notes TVA’s proposal to establish a program to monitor and manage ongoing measures to ensure compliance with Section 106 of the NHPA agreement and NEPA documents.<sup>4</sup> EPA applauds TVA’s efforts and encourages the use of CEQ’s guidance on Mitigation and Monitoring (2011) when developing these monitoring plans.
- **Table 2-10** – Again it is unclear if the improvement activities listed in table 2-10 are associated with the preferred alternative.
- **Table 2-19 and 2-27** - Table provides a listing of specific management programs for different resources. It is unclear if the “proposed programs” listed in these tables are being considered under the preferred alternative. If so, this should be made clear in the FEIS. Additional discussion is provided with regards to Table 2-27 in proceeding comments. Also, EPA notes that several “current programs” will be enhanced under different alternatives. EPA recommends that TVA add an “enhanced” column to tables similar to Table 2-27 in Chapter 2.
- Terrestrial Greenhouse Gas Sequestration is discussed in Chapter 2. EPA recommends that TVA consider the offsetting effects of GHGs produced by fire suppression activities when discussing the benefits of terrestrial carbon sequestration of forested lands.
- **Table 2-21** - Again it is unclear if the improvement activities listed in table 2-21 are associated with the preferred alternative.
- **Section 2.4.1 - Aquatic Ecology Management** – Provides a description of the program using future tense (would)<sup>5</sup> yet this program is listed in the Table 2-27 as a current program. EPA noted this issues for multiple program descriptions throughout Chapter 2.
- **Section 2.4.3 – Water Resource Outreach Campaigns** – A statement “Water Resource Outreach Campaigns could include focused efforts to raise public awareness .....”<sup>6</sup> is made in this section. The word “could” leaves the reader wondering what this program will actually entail when implemented. EPA

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<sup>3</sup> P. 25

<sup>4</sup> P. 28

<sup>5</sup> P. 68

<sup>6</sup> P. 72

recommends that TVA make an effort in the FEIS to be more definitive about newly proposed programs.

- **Section 2.4.5 – Water Resource Tools – Urban Storm Water Assistance** – EPA applauds TVA’s efforts to address urban storm water issues. Choosing effective stormwater BMPs is one of the key challenges facing anyone interested in improving or protecting the quality of our rivers, lakes, and coastal waters. EPA encourages TVA to visit the EPA Urban BMP Performance website for additional BMPs that could be considered for implementation on TVA land: <http://cfpub.epa.gov/npdes/stormwater/urbanbmp/bmpeffectiveness.cfm>
- **Section 2.4.5 – Water Resource Improvement Tools – Stream and Riparian Management and Restoration** – EPA recommends that use of natural stream channel design when possible for stream restorations. EPA recommends that TVA provide additional details regarding stream restoration methodologies that TVA will utilize under this program.
- **Section 2.4.5 – Water Resource Improvement Tools – Water Pollutant Trading** - EPA request clarification of the statement “Regulatory processes that allow Trading would be present in the watershed, and stakeholders would be involved in developing the Trading mechanisms.”<sup>7</sup> It may be beneficial to readers if TVA provided more details on water pollutant trading opportunities in the Tennessee Valley.

### Chapter 3

- **Table 3-1** – The term “Enhanced Management” is used in Table 3-1 which appears to be the same management strategy listed in the other parts of the document as the “Blended Management” approach, which TVA has selected as the preferred alternative. EPA request clarification.
- **Alternatives Development** – EPA notes that information regarding how and why TVA selected the four alternatives analyzed in the DEIS is lacking. EPA recommends that TVA provide additional information on how alternative management strategies were selected. EPA also recommends that TVA provide more detail in the FEIS on how and why specific new programs are being proposed under the preferred alternative.
- **Section 3.2.1.1 – Biological and Cultural Resources Management** – EPA is unclear on why the “Dispersed Recreation Management” discussion is included in this section and not the Recreation Management section.
- **Section 3.2.1.4 – Water Resource Management** – It is stated section 3.2.1 that “Under the No action Alternative, TVA would continue its current natural resource management efforts by implementing the existing stewardship programs...”<sup>8</sup> yet several programs such as the aquatic ecology management program and the water efficiency program, which are listed in table 2-27 as current programs, are not listed in Section 3.2.1.4. It would be logical for a reader to assume that if these are current programs (listed in table 2-27) they would be included in the no-action alternative. In addition, Appendix H, appears to exclude

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<sup>7</sup> P. 82

<sup>8</sup> P. 91



these programs, which is consistent with the text in section 3.2.1.4. EPA recommends clarification of tables in document.

- **Section 3.6 – The Preferred Alternative** – EPA recommends that TVA provide additional information and details on how TVA proposes to determine which stewardship programs will be implemented first when opportunities and and/or resources become available. Will programs be prioritized and how?

#### Chapter 4

- **Table 4-5 – Ecological Health Ratings of TVA Reservoirs** – EPA recommends that 303(d) and TMDL information be added to this table.

#### Chapter 5

- **Section 5.17 - Climate** – EPA recommends that TVA provide more discussion (in addition to Appendix M) in the FEIS regarding how Climate Change will impact current and proposed programs listed in the NRP.

**Appendix H** – EPA finds this table to be very helpful in summarizing the specific programs being proposed for each alternative. EPA did review the table in Appendix H and had some concerns with regards to the elimination of certain programs.

EPA comments on Appendix H:

- Biological and Cultural Resource Management
  - Terrestrial Greenhouse Gas Sequestration Management
    - Currently TVA conducts demonstration projects on 41 acres of TVA managed land focusing in issues related to terrestrial GHG management practices. Under the preferred alternative this effort would be eliminated. EPA recommends that these efforts be at least maintained at the existing levels.
    - Currently TVA conducts 2 demonstration projects focusing on issues related to terrestrial GHG management practices. Under the preferred alternative this effort would be eliminated. EPA recommends that these efforts be at least maintained at the existing levels.
    - Currently TVA has entered into 2 third-party consortiums focusing on issues related to terrestrial GHG management. Under the preferred alternative this effort would be eliminated. EPA recommends that these efforts be at least maintained at the existing levels.
- Recreation
  - It appears that assisting in the development of greenway miles may decrease from current effort levels listed under the “no-action” alternative. EPA recommends that these efforts be at least maintained at the existing levels.

- Water Resource Management
  - It appears that stream assessments may decrease from current effort levels listed under the “no-action” alternative. EPA recommends that these efforts be at least maintained at the existing levels.
  - Addition clarification is requested for programs listed to reduce suspended sediment and reduce phosphorus. It appears from Appendix H that these programs currently have set goals under the “no-action” alternative and these goals would be eliminated under the preferred alternative.